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Eagle Point Solution to a Frequently Asked Question

How to Transfer GPS Survey Data and Contours

Summary:
This document explains the process for converting georeferenced Eagle Point/AutoCAD survey points and contours into an ArcView format. Surveys need to be done using any real world coordinate system (NAD 83 UTM Zone 15, International Survey Feet is typical).

Product: Eagle Point Software™ 2001
Release: 2001 Q4 or 1.4.0 and greater
Platform: All
Related documents:

As always, should you have any questions regarding any phase of installation, contact Eagle Point Technical Assistance at (800) 477-0909.

Notation Method

Button to Press *Displayed Text* **Icon** Action {Text to Enter} *Menu Item…*

1. Output Contours from Autodesk Map to a .shp File

This process converts contours to be ready for use in an ArcView project that is based on UTM NAD 83 with meters as the X, Y reference but the elevation of the contours will be maintained.

- In Eagle Point/Autodesk Map
  1. Create contour lines using Eagle Point. (These must be created as polylines).
  2. From Autodesk Map, click *Map… Tools… Assign Global Coordinate System….*
  3. Input {UTM83-15IF} for UTM NAD83, Zone 15, International Feet.
  4. Click *Map… Tools… Export….*
  5. Pull down File of Type to *ESRI Shape*.
  6. Browse to the location where you want to save the shapefile.
  7. Input a filename for the shapefile. E.g. {Williams_ContoursM}. Click OK.
  8. From the Selection Tab
     i. Select Object Type as *Line*.
     ii. Either (Use *Select Manually* and click **Select Objects** to pick the contours lines in CAD) or (Use *Select All* and click **Select Layers** to set the Layers Filter to *C.Topo.Ogrnd.Intr* & *C.Topo.Ogrnd.Indx*) .
  9. From the Data Tab
     i. Click Select Attributes…
     ii. Under the Properties checkmark *Elevation*, & *Layer*.

iii. Click OK.

10. From the Options Tab
    i. Checkmark Coordinate Conversion *Convert to*.
    ii. Input {UTM83-15} for UTM NAD 83, Zone 15, Meters.
11. Click OK.
    The processing screen will display the numbers of objects and will disappear once the shape file has been created.

B. Use ArcView Extension to Convert Survey Points from AutoCAD drawing file.

This process converts survey points to be ready for use in an ArcView project that is based on UTM NAD 83 with meters as the X, Y reference but the elevation of the contours will be displayed as feet. This process brings in the label and point number of the shots also.

- In Eagle Point/AutoCAD
  1. Create survey points using Eagle Point.
  2. Select the Survey points.
  3. In AutoCAD, select *Edit… Copy….*
  4. Open a blank drawing.
  5. *Edit… Paste to Original Coordinates….*
  6. *File… Save As….*
  7. Input a filename. E.g. {Williams_Pts}.
  8. Pull down File type to an *AutoCAD 2000* version or older drawing.
- In ArcView 3.3
  1. Click *File… Extensions….*
  2. Checkmark *Cad Reader* & *Projection Utility Wizard*
  3. Click OK
  4. Click *View…Add Theme…*
  5. Select the DWG file icon and select the Points sub-item.
  6. Click OK.
  7. Checkmark and select the points theme
  8. Click *Theme… Convert to Shapefile…*
  9. Browse to the desired directory and input the filename. E.g. { Williams_PtsFt.shp}
  10. Click No to not Add Theme.
  11. Click *File… Arcview Projection Utility….*
  12. Click Browse and browse to the newly created shapefile.
  13. Click Next.
  14. For the Original projection
      i. Checkmark *Projected*.
      ii. Pull down Zone to *NAD_83_UTM_Zone15N[26915]*.
      iii. Pull down Units to *Foot [9002]* .
  15. Click Next. Click Yes to save Coordinate info with shape file.
  16. For the New Coordinate System
      i. Checkmark *Projected*.
      ii. Pull down Zone to *NAD_83_UTM_Zone15N[26915]*.
      iii. Pull down Units to *Meter [9001]*.
  17. Click Next.
  18. Click Browse and input the output name. E.g. {Williams_PtsM.shp}.

19. Click Save. Click Next.
20. Click Finish. Click OK.
21. Click No.
    The shape file has been created and can be added to a project.

Submitted by Norman Friedrich.